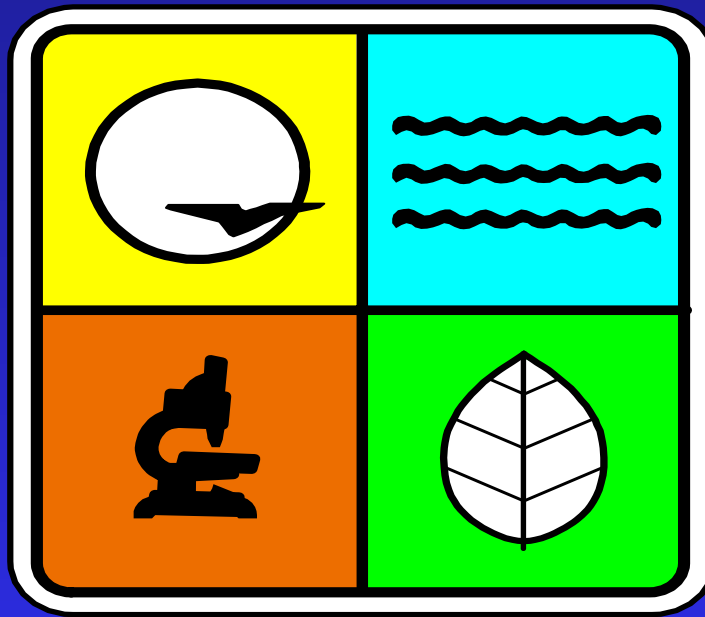


# Public Information and Consultation Meeting **BOUNDARY DESIGNATION**

Eight-hour Ozone Standard



**Refaat Mefrakis, P.E.**

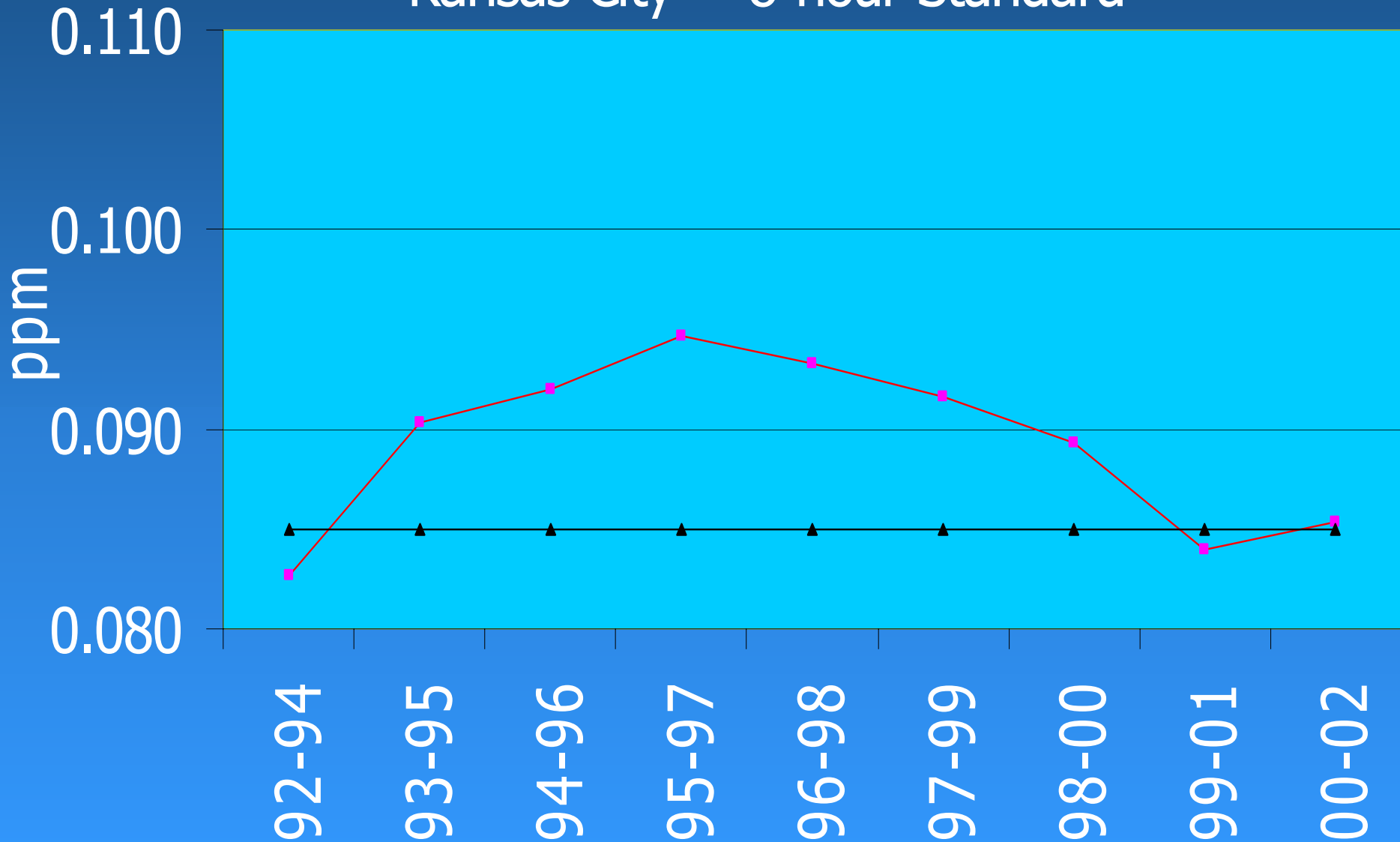
# Consent Decree



- Requested designation recommendations and documentation from each State Governor be submitted to the Regional Administrator by April 15, 2003.
- Set April 15, 2004, as the date that area designations for the 8-hour ozone standard will be finalized by EPA.

# 8-hour Design Values

—■— Kansas City —▲— 8-hour Standard

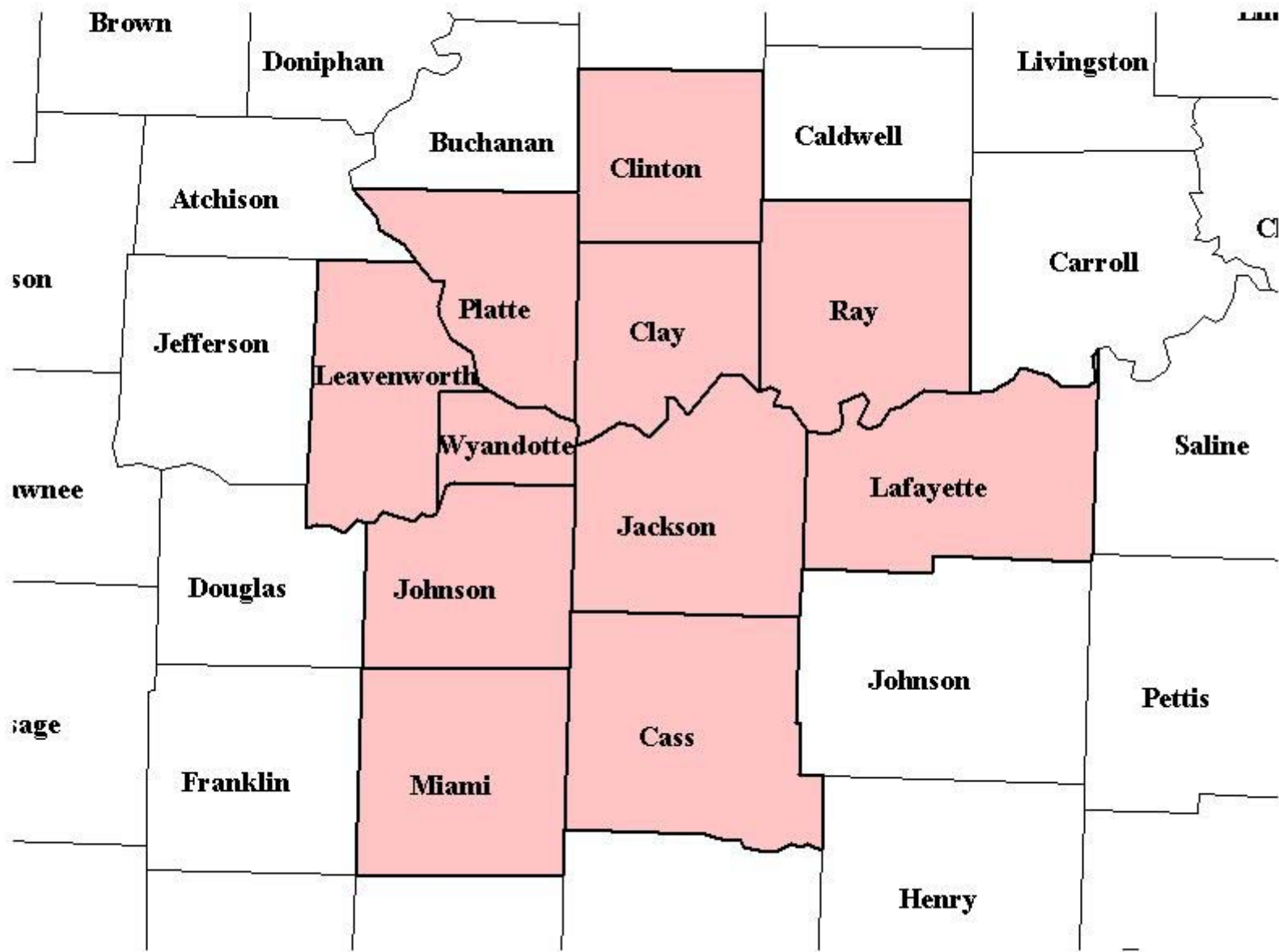




# Criteria for Establishing Boundaries

- Area designations are based on air quality data.
- Any area that does not meet **or that contributes to nearby** areas not meeting the ambient air quality standard.
- EPA recommends that **C/MSA** serve as the presumptive boundary for 8-hour ozone nonattainment areas.

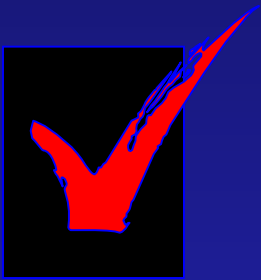
# KANSAS CITY MSA





# **EPA Guidance for Establishing Boundaries**

- **EPA asks states wishing to propose boundaries different than the C/MSA to address 11 different factors.**



# **Factors to Consider**

- **Emission and Air Quality**
- **Population Density and Degree of Urbanization**
- **Monitoring Data**
- **Location of Emissions Sources**
- **Traffic and Commuting Pattern**
- **Expected Growth**

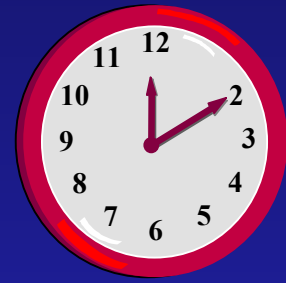


# **Factor to Consider Cont'd**

- **Meteorology**
- **Geography/ Topography**
- **Jurisdictional Boundaries**
- **Level of Control of Emission Sources**
- **Regional Emissions Reductions**



# Summary of Timeline



- States are to update recommended designation during 2003.
- Promulgate air quality designation in April of 2004.
- State Implementation Plans are due by 2007.



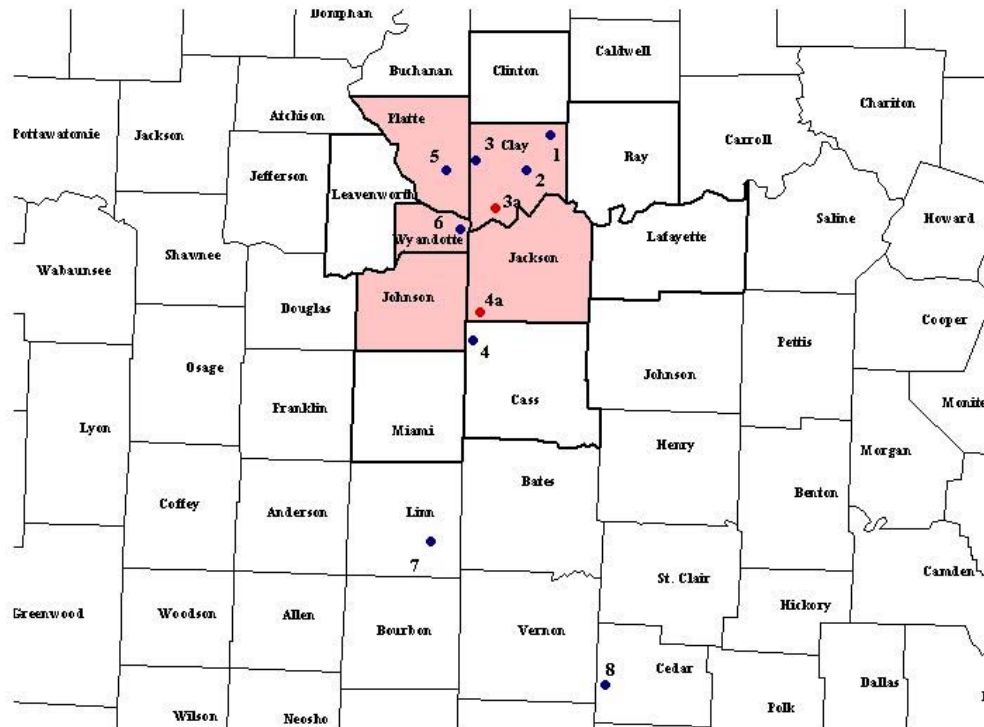
# **Technical Support Document**

## **Jeffry D. Bennett, P. E.**

# Progress to Date

- **Review of July 2000 recommendation and technical support document**
  - <http://www.dnr.state.mo.us/alpd/apcp/homeapcp.htm>
- **Collection of “new” information (air quality monitoring data, emissions, traffic count/VMT, population, meteorology)**

## MONITORING LOCATIONS IN THE KANSAS CITY AREA



- **Current Monitors**

- 1 **Watkins Mill State Park**
- 2 **Liberty**
- 3 **Rocky Creek**
- 4 **Richards Gebaur - South**
- 5 **KCI Airport**
- 6 **JFK - Wyandotte Co (KS)**
- 7 **Mine Creek (KS)**
- 8 **El Dorado Springs**

- **Relocated Monitors**

- 3a Worlds of Fun**  
**4a Richards Gebaur**

☐ MSA

 KC Maintenance Area



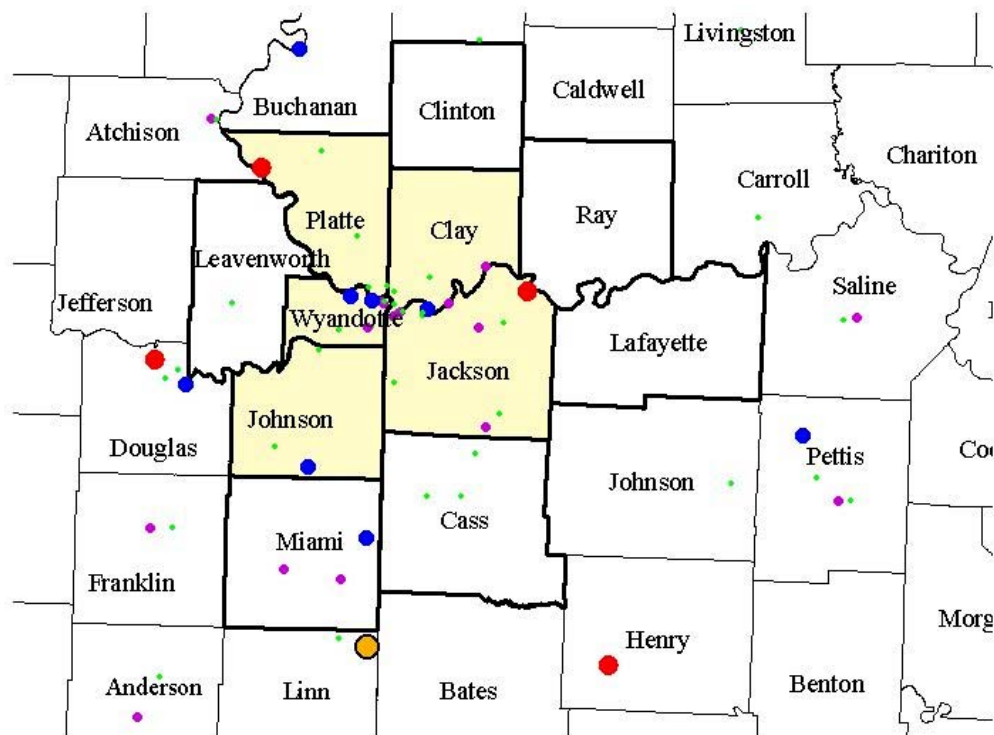
## 8-hour Ozone Design Values

Monitor	95-97	96-98	97-99	98-00	99-01	00-02
	Average	Average	Average	Average	Average	Average
Liberty	<b>94</b>	<b>93</b>	<b>91</b>	<b>89</b>	84	<b>85</b>
Watkins Mill	<b>91</b>	<b>89</b>	<b>90</b>	<b>86</b>	80	80
KCI	<b>86</b>	<b>86</b>	<b>85</b>	<b>85</b>	81	84
Worlds of Fun	80	80	83	<b>85</b>	82	-
Richards Gebaur	73	72	75			
Richards Gebaur South						79
Rocky Creek						<b>91**</b>
Wyandotte Co. (KS)	<b>85</b>	84	82	84	80	81
El Dorado Springs				<b>88</b>	84	83
Mine Creek (KS)				81	79	76

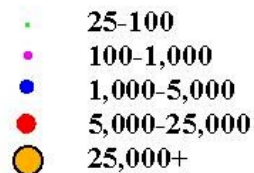
**BOLD** denotes monitors that exceed the 85 ppb cutoff

\*\*2002 Data Only at Rocky Creek

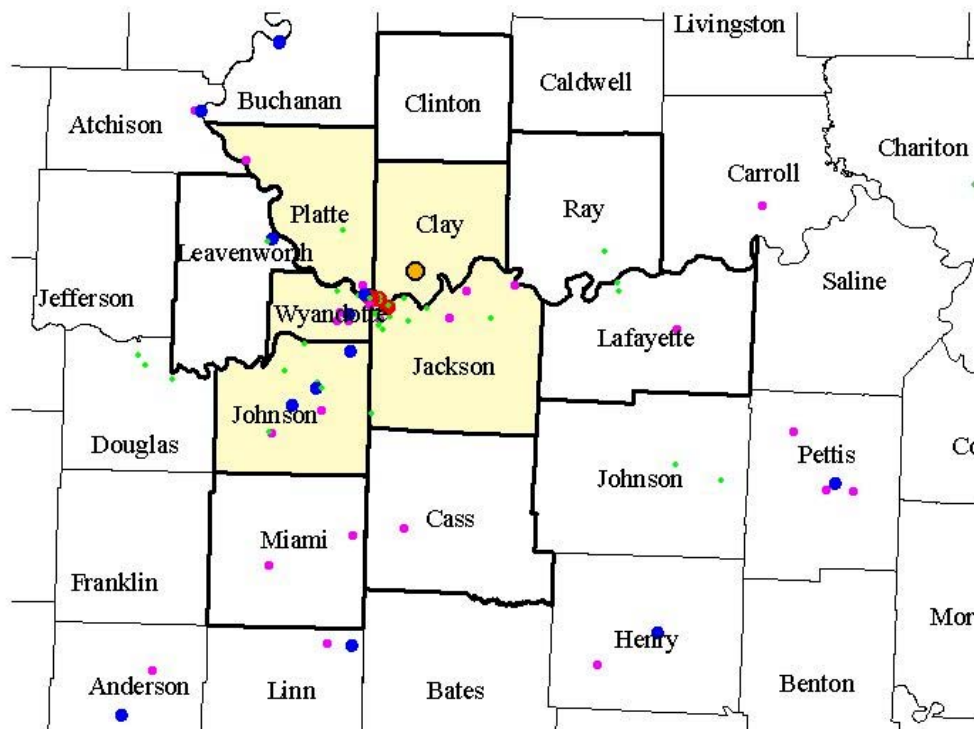
# NOx POINT SOURCES KANSAS AND MISSOURI



## NOx Emissions in TPY



# VOC POINT SOURCES KANSAS AND MISSOURI



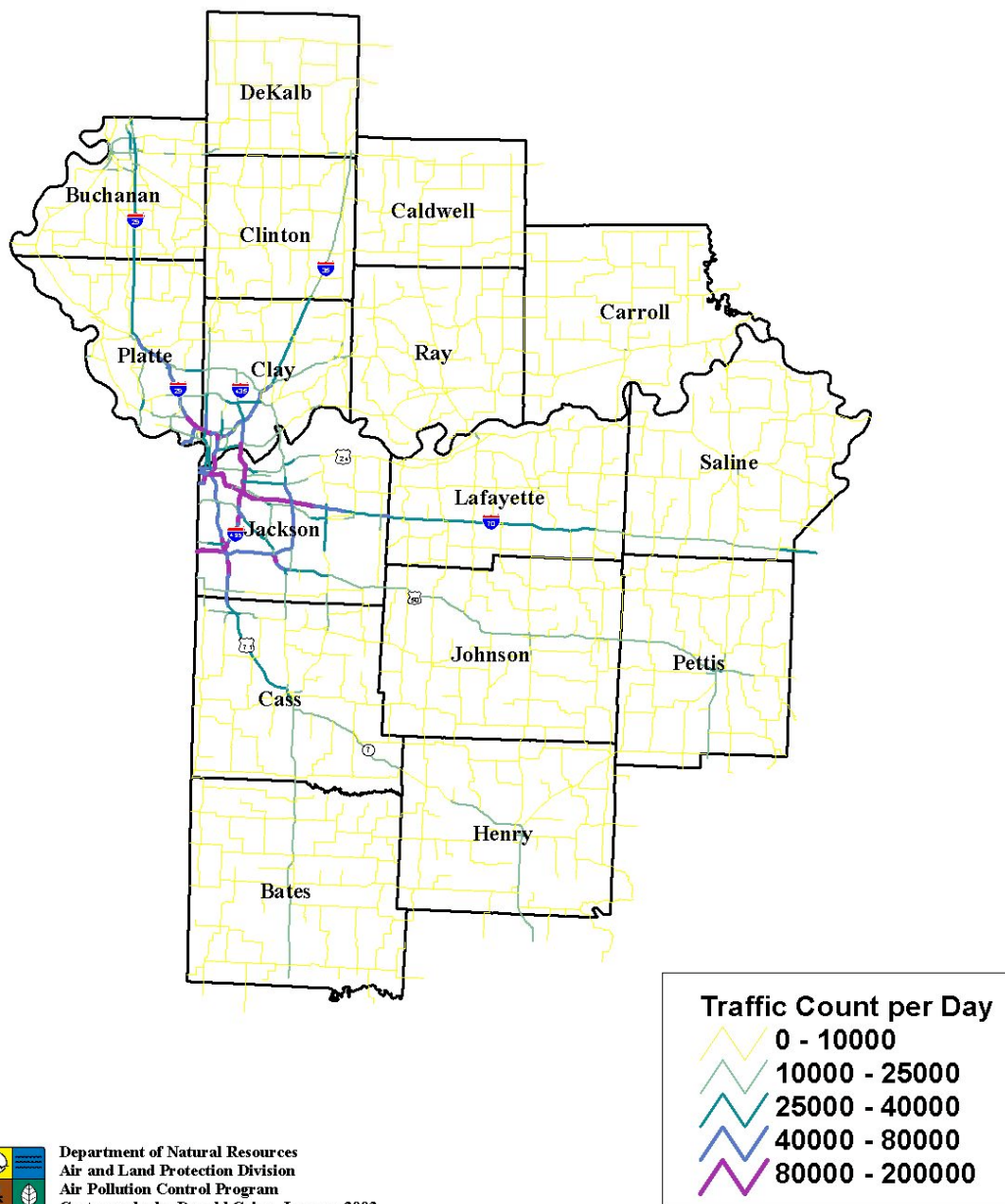
MSA  
 KC Maintenance Area

## VOC Emissions in TPY

- 25 - 50
- 50.01-100
- 100.01-300
- 300.01-1,000
- 1,000+

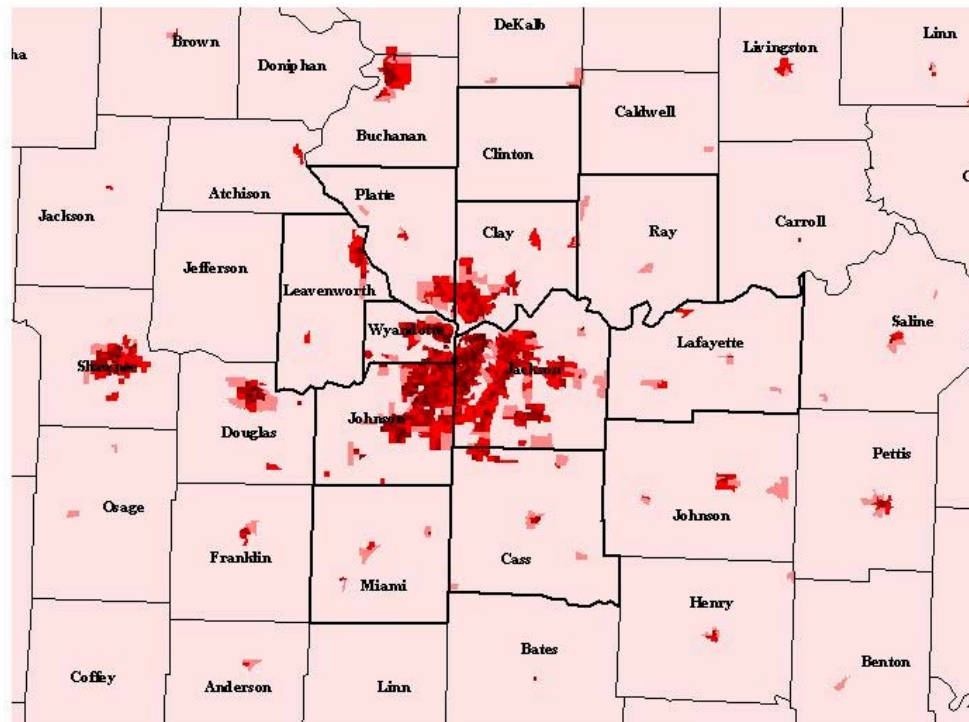


# 2001 TRAFFIC COUNT FOR MISSOURI COUNTIES IN THE KANSAS CITY AREA

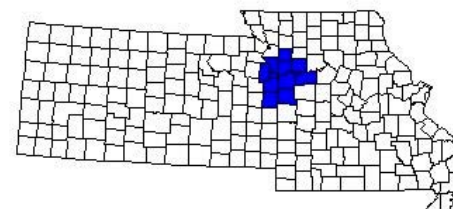
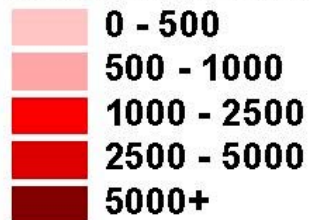




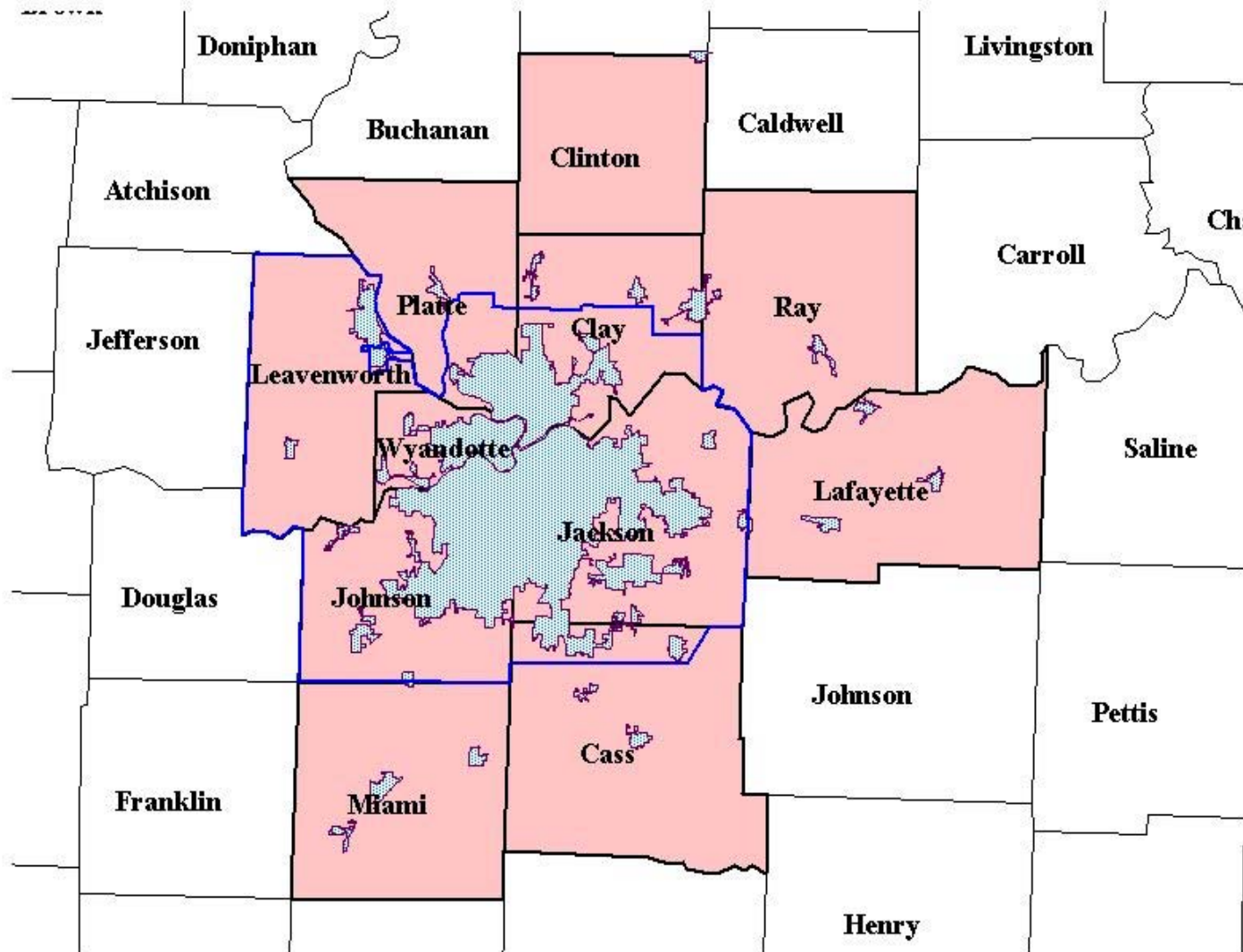
# 2000 POPULATION DENSITY FOR COUNTIES IN THE KANSAS CITY AREA



## Population Density



# KANSAS CITY AREA BOUNDARIES



Department of Natural Resources  
Air and Land Protection Division  
Air Pollution Control Program  
Cartography by Donald Cripe, January 2003



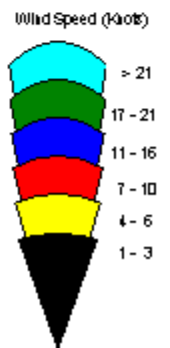
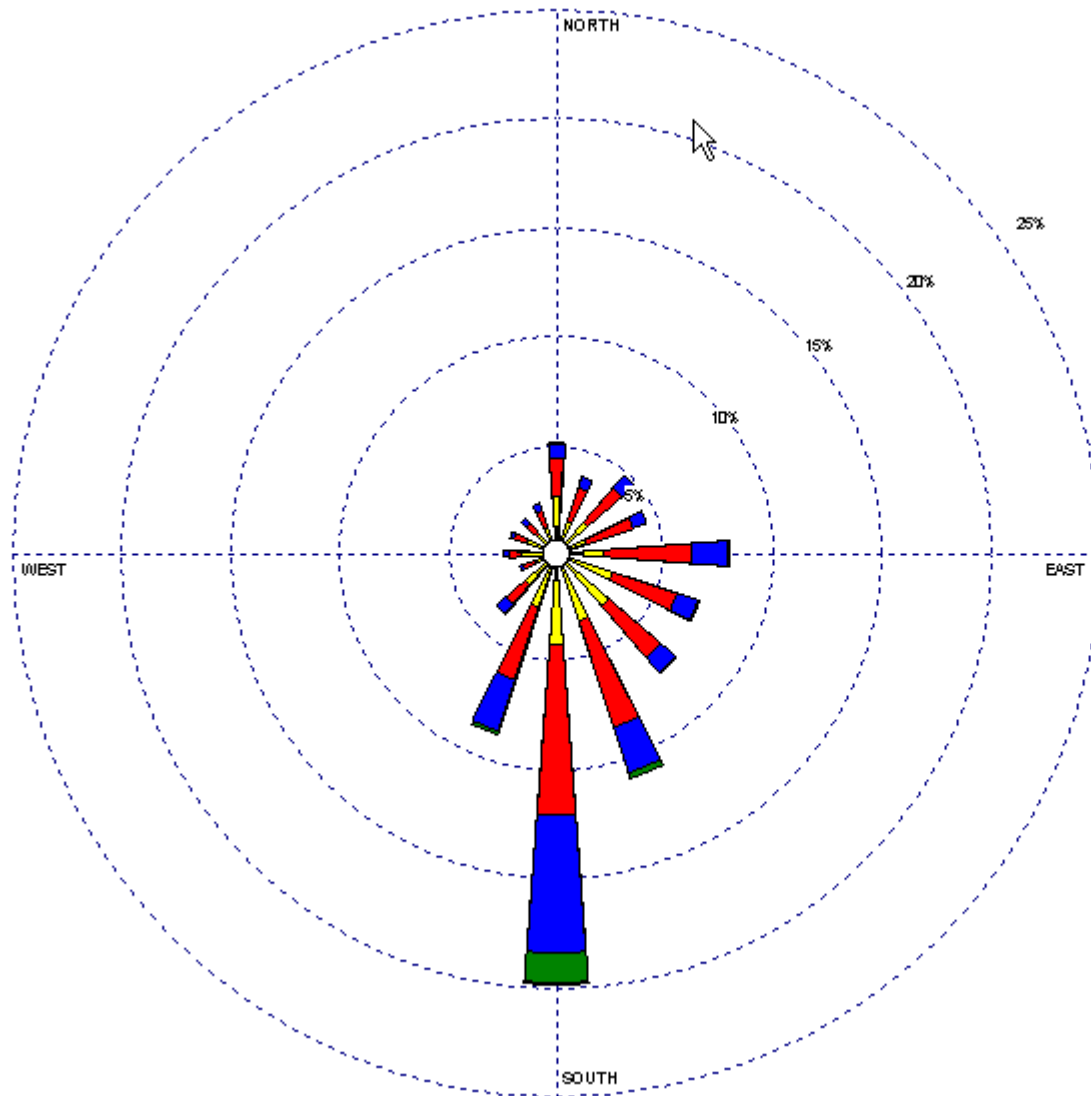
**MPO BOUNDARY**

**URBAN AREAS**

**MSA**



# KC Windrose (June - August)



# **Regional NOx Controls**

- **10 CSR 10-6.350 -- Missouri Statewide NOx Trading Rule**
- **Control of emissions in western 2/3 of Missouri to 0.35 lb NOx/MMBTU from electric generating units**

# Summary

- **MDNR will continue to collect and review information to be used in support of the 8-hour designation recommendation**
- **Upon completion of that effort (including input from the affected communities), MDNR will propose boundary designations for areas in Missouri**